Amendments to the claims:

This listing of the claims will replace all prior versions, and listing, of claims in the application. Claims 8, 9, and 29 are being cancelled. Claims 30 and 33 are being rewritten in independent form. Claim 31 now depends on claim 30.

Listing of Claims:

(Claims 1-3 have been cancelled.)

4.(Previously Presented) A sound processing system comprising:

a speaker;

an integrated circuit having a first terminal coupled to the speaker, the integrated circuit further comprising:

an output circuit coupled to the first terminal, wherein the output circuit applies to the first terminal an analog output signal to drive the speaker;

an input circuit coupled to the first terminal, wherein the input circuit processes an input signal from the speaker via the first terminal

a functional unit; and

an activation circuit that activates the functional unit in response to the input signal from the speaker exceeding a threshold level, wherein the functional unit is coupled to the output circuit and begins an output operation to drive the speaker in response to being activated by the activation circuit.

5.(Original) The system of claim 4, wherein:

the functional unit comprises a memory array and access circuitry capable of reading values from the memory array; and

the output circuit comprises a converter coupled to the access circuitry, wherein the converter converts a series of values read by the access circuitry into an analog signal that determines the output signal.

6.(Previously Presented) The system of claim 5, wherein the input circuit comprises:

an amplifier coupled to the first terminal;

a second converter coupled to the amplifier and the access circuitry, wherein the second converter converts the input signal from the speaker into a series of values read that the access circuitry writes to the memory array.

7.(Previously Presented) The system of claim 4, wherein the activation circuit includes a delay element coupled to prevent activation of the functional unit during a period following completion of an operation of the functional unit.

(Claims 8-10 have been cancelled.)

11.(Previously Presented) A sound processing system comprising:

a speaker;

an integrated circuit having a first terminal coupled to the speaker, the integrated circuit further comprising:

an output circuit coupled to the first terminal, wherein the output circuit applies to the first terminal an analog output signal to drive the speaker; and

an input circuit coupled to the first terminal, wherein the input circuit processes an input signal from the speaker via the first terminal,

wherein the integrated circuit is in a three pin package including a first pin connected to the speaker and the first terminal of the integrated circuit, a second pin for connection to a power supply, and a third pin for connection to ground.

12.(Previously Presented) A sound processing system comprising:

a speaker;

an integrated circuit having a first terminal coupled to the speaker, the integrated circuit further comprising:

an output circuit coupled to the first terminal, wherein the output circuit applies to the first terminal an output signal to drive the speaker; and

an input circuit coupled to the first terminal, wherein the input circuit processes an input signal from the speaker via the first terminal,

wherein the integrated circuit is in a three pin package including a first pin connected to the speaker and the first terminal of the integrated circuit, a second pin for

connection to a power supply, and a third pin for connection to ground, and wherein the three pin package is a T092 package.

(Claims 13-16 have been cancelled.)

17.(Previously Presented) An integrated circuit comprising:

an input/output pin;

a sound processing circuit;

an output circuit coupled to the input/output pin, wherein the output circuit applies to the input/output pin an output signal representing a sound;

an activation circuit coupled to the input/output pin and the functional unit, wherein in response to an input signal from the input/output pin, the activation circuit activates the sound processing circuit;

an input circuit coupled to the input/output pin, wherein the input circuit, when active, transfers the input signal received from the input/output pin to the sound processing circuit; and

a control circuit coupled to the sound processing circuit, wherein the control circuit selects an operation performed by the processing circuit when the activation circuit activates the sound processing circuit, and

wherein the sound processing circuit comprises:

a first functional unit that performs an output operation to generate a signal to the output circuit and a second functional unit that performs an input operation to processes the input signal from the input circuit;

a memory array;

a read circuit coupled to the memory array, wherein the read circuit is part of the first functional unit and the output operation includes reading from the memory array a series of values representing a sound; and

a write circuit coupled to the memory array, wherein the write circuit is part of the second functional unit and the input operation includes writing to the memory array a series of values representing the input signal.

18.(Previously Presented) The integrated circuit of claim 17, wherein the activation circuit comprises a delay element coupled to prevent the activation circuit from

activating the sound processing circuit during a delay period following completion of an operation by the sound processing circuit.

19.(Previously Presented) The integrated circuit of claim 17, further comprising a die and a three-pin package in which the die is mounted, the three-pin package having exactly three pins including the input/output, a pin for connection to a power supply, and a pin for connection to ground.

20.(Previously Presented) A method for operating a sound processing system, comprising:

connecting a terminal of a sound processing circuit to a speaker;

creating a vibration in the speaker that causes the speaker to generate an input signal to the terminal of the sound processing circuit;

activating a functional unit in the sound processing circuit in response to the input signal; and

in response to activating the functional unit, generating an analog output signal from the functional unit through the terminal to the speaker, wherein the output signal drives the speaker to produce a sound.

21.(Original) The method of claim 20, wherein creating the vibration comprises making a noise that causes a vibration in the speaker.

22.(Previously Presented) A method for operating a sound processing system, comprising:

connecting a terminal of a sound processing circuit to a speaker;

creating a vibration in the speaker that causes the speaker to generate an input signal to the terminal of the sound processing circuit, wherein creating the vibration comprises touching in the speaker;

activating a functional unit in the sound processing circuit in response to the input signal; and

in response to activating the functional unit, generating an output signal from the functional unit through the terminal to the speaker, wherein the output signal drives the speaker to produce a sound.

23.(Original) The method of claim 20, wherein the sound processing circuit is an integrated circuit and the terminal is a bi-direction input/output pin of the integrated circuit.

24.(Original) The method of claim 20, wherein generating the output signal comprises performing an output operation, and the method further comprising disabling activation of the functional unit during a delay time following the completion of the output operation.

25.(Previously Presented) The system of claim 6, wherein the output signal is derived from said series of values.

26.(Previously Presented) The system of claim 9, wherein the output signal is derived from said series of values.

27.(Previously Presented) The integrated circuit of claim 17, wherein the output signal is derived from said series of values.

28.(Previously Presented) A method for operating a sound processing system, comprising:

connecting a terminal of a sound processing circuit to a speaker;

creating a vibration in the speaker that causes the speaker to generate an input signal to the terminal of the sound processing circuit;

activating a functional unit in the sound processing circuit in response to the input signal; and

in response to activating the functional unit, generating an output signal from the functional unit through the terminal to the speaker, wherein the output signal drives the speaker to produce a sound; and

recording an audio input by said functional unit through the speaker prior to creating the vibration, wherein the output signal is derived from the audio input.

(Claim 29 had been cancelled.)

30.(Currently Amended) An ~~The~~ integrated circuit ~~of clam 29~~comprising:

an input/output pin;

a memory array, wherein said memory array is comprised of non-volatile memory cells; and

a sound processing circuit including:

a write circuit coupled to the memory array and to the input/output pin, wherein the write circuit performs an input operation that includes writing to the memory array a series of values representing an audio signal received from the input/output pin; and

a read circuit coupled to the memory array and to the input/output pin, wherein the read circuit performs an output operation that includes reading from the memory array and supplying to the input/output pin a series of values representing said audio signal.

31.(Currently Amended) The integrated circuit of claim ~~29~~ 30, wherein said series of values are analog values.

32.(Previously Presented) The integrated circuit of claim 30, wherein said memory array comprises a FLASH EEPROM memory.

33.(Currently Amended) An ~~The~~ integrated circuit ~~of clam 29, further~~ comprising:

an input/output pin;

a memory array;

a sound processing circuit including:

a write circuit coupled to the memory array and to the input/output pin, wherein the write circuit performs an input operation that includes writing to the memory array a series of values representing an audio signal received from the input/output pin; and

a read circuit coupled to the memory array and to the input/output pin, wherein the read circuit performs an output operation that includes reading from the memory array and supplying to the input/output pin a series of values representing said audio signal; and

an activation circuit coupled to the input/output pin and to the sound processing circuit, wherein the sound processing circuit is activated by the activation circuit to supply said audio signal to the input/output pin in response to an input signal received from the input/output pin.

34.(Previously Presented) A method for operating a sound processing unit, comprising:

connecting a terminal of a sound processing circuit to a speaker;

recording by the sound processing circuit an audio input received through the speaker;

generating an input signal to the terminal of the sound processing circuit; and

in response to the input signal, supplying from the sound processing circuit through the terminal to the speaker an analog output signal derived from the audio input, wherein the output signal drives the speaker to produce a sound.

35.(Previously Presented) The method of claim 34, wherein said input signal is generated by creating a vibration in the speaker.

36.(Previously Presented) The method of claim 34, wherein the sound processing circuit is an integrated circuit and the terminal is a bi-directional input/output pin of the integrated circuit.